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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,359	02/14/2001	Housam Maher Al-Housami	3	7805

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EXAMINER

FERGUSON, KEITH

ART UNIT PAPER NUMBER

2683

DATE MAILED: 04/07/2004

*9*

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/782,359

**Applicant(s)**

AL-HOUSAMI, HOUSAM MAHER

**Examiner**

Keith T. Ferguson

**Art Unit**

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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DETAILED ACTION

*Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Widegren et al. in view of Laakso and Cherpantier et al..

Regarding claim 1, Widegren et al. discloses a wideband mobile radio telecommunication system having a heterogeneous service with different rates (fig. 1, and col. 5 lines 35-67) Widegren et al. differs from claim 1 of the present invention in that it does not disclose a method of resource allocation comprising the steps of determining the current relative proportions of traffic of each rate traffic in telecommunication cell; and applying a threshold to the loading level in said cell, the threshold being dependent upon the determined

relative proportion. Laakso teaches a method of resource allocation (paragraph 0010 line 1 through paragraph 0016 line 18) comprising the steps of determining the current relation proportions (i.e. the load originates from real time users and load attributable to non real time users) (paragraph 0010 line 1 through paragraph 0016 line 18 and paragraphs 0072 line 1 through paragraph 0083 line 8) of traffic of each rate (load) traffic in telecommunication cell (paragraph 0010 line 1 through paragraph 0016 line 18 and paragraphs 0072 line 1 through paragraph 0083 line 8). Cherpantier et al. teaches applying a threshold to the loading level in said cell, the threshold being dependent upon the determined relative proportion (col. 4 lines 22-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Widegren et al. with a method of resource allocation comprising the steps of determining the current relative proportions of traffic of each rate traffic in telecommunication cell; and applying a threshold to the loading level in said cell, the threshold being dependent upon the determined relative proportion in order to provide quality channels within a cell of system by transmitting a power control to help reduce interference between

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mobile stations and to manage traffic loads within the cell to provide clearer channels to multiple users, as taught by Laakso, and Cherpantier et al..

Regarding claims 2-7, the combination of Widegren et al. and Cherpantier et al. differs from claims 2-7 of the claimed invention in that it do not disclose the proportion of the high rate users is determined/performed in a base transceiver from a received signal strength which is sent to a central radio network controller and a variable threshold is allocated to each cell by the radio network controller and the radio network controller maintains a table of threshold values for specific mixes of service and selects a threshold for a cell so as to maintain optimum network operation. Laakso teaches the proportion of the high rate users is determined/performed in a base transceiver from a received signal strength (paragraph 0036 and 0060) which is sent to a central radio network controller (paragraph 0062) and a variable threshold (second load value can be equal to higher load value) is allocated to each cell by the radio network controller (paragraph 0061 and 0062) and the radio network controller maintains a table of threshold values for specific mixes of service and selects a threshold for a cell so as to maintain optimum network operation (paragraph 0062).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Widegren et al. and Cherpantier et al. with the proportion of the high rate users is determined/performed in a base transceiver from a received signal strength which is sent to a central radio network controller and a variable threshold is allocated to each cell by the radio network controller and the radio network controller maintains a table of threshold values for specific mixes of service and selects a threshold for a cell so as to maintain optimum network operation in order to control uplink interference within a cell of a system that has wide bandwidth and to be able to manage traffic loads within the cell and surrounding cell/sectors, as taught by Laakso.

3. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Widegren et al. in view of Rikken et al., Laakso and Cherpantier et al..

Regarding claims 8 and 9, Widegren et al. discloses wideband mobile radio telecommunication system (UMTS) comprising core network and a plurality of RNC and controlling a plurality of base transceiver stations (fig. 1 number 16,24,26 and 28); Widegren et al. differs from claims 8 and 9 of the present invention in that it do not disclose each base transceiver

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arranged to determine intermittently the relative proportions of traffic of each rate in a cell; to apply a variable threshold to the loading level in the cell; the variable threshold being dependent upon the determined proportions. Rikken et al.

teaches each base transceiver arranged to determine intermittently the relative proportions (load condition) of traffic of each rate in a cell (col. 4 lines 4-10 and col. 7 lines 35-47). Laakso teaches to apply a variable threshold (second load control equal or higher than first load control) to the loading level in the cell (paragraph 0060 and 0061) and the base transceiver is arranged to send the radio network controller (radio network planner) a signal indicating a relative proportions and receive from radio network controller a variable loading limit to be applied (i.e. the load originates from real time users and load attributable to non real time users) (paragraph 0010 line 1 through paragraph 0016 line 18, paragraph 0061 and 0062 and paragraphs 0072 line 1 through paragraph 0083 line 8). Cherpantier et al. teaches the variable threshold being dependent upon the determined relative proportions (col. 4 lines 22-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Widegren et al. with each base

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transceiver arranged to determine intermittently the relative proportions of traffic of each rate in a cell; to apply a variable threshold to the loading level in the cell; the variable threshold being dependent upon the determined relative proportions in order to control uplink interference within a cell of system that has wide bandwidth and to be able to manage traffic loads within the cell and surrounding cell/sectors, as taught by Rikken et al. and Laakso.

***Response to Arguments***

4. Applicant's arguments filed January 23, 2004 have been fully considered but they are not deemed to be persuasive. The following are explanations to the applicant arguments:

5. Argument: Regarding claim 1, applicant alleges that Laakso fails to disclose or suggest determining the current proportion or traffic each rate.

Explanation: Examiner respectfully disagrees because Laakso teaches a method of resource allocation (paragraph 0010 line 1 through paragraph 0016 line 18) comprising the steps of determining the current relation proportions (i.e. the load originates from real time users and load attributable to non real time users) (paragraph 0010 line 1 through paragraph 0016 line 18 and paragraphs 0072 line 1 through paragraph 0083 line



8) of traffic of each rate (load) traffic in telecommunication cell (paragraph 0010 line 1 through paragraph 0016 line 18 and paragraphs 0072 line 1 through paragraph 0083 line 8).

6. Argument: Regarding claims 1 and 8, applicant alleges that Laakso and Cherpantier teaches a lumped load value is estimated and compared to a first reference load value.

Explanation: Examiner agrees with applicant, however, Laakso teaches the load is estimated from originating from real time users, the interference originating from other cells, the system noise and load attributes to non-real time users with minimum guarantee bit rate are compared to a reference load value (paragraph 0075 lines 1-35). The examiner interprets the claim limitation "determining the current relative proportions of traffic of each rate in a telecommunication cell" to mean to determined the traffic load estimate within a cell to be compared with a threshold value.

7. Argument: Applicant alleges that Rikken do not disclose or suggest that each base station is arranged to determined intermittently the proportions of traffic of each rate.

Explanation: Examiner respectfully disagrees because Rikken et al. teaches each base transceiver arranged to determine intermittently the relative proportions of traffic of each rate in a cell (i.e. the power level, the traffic load as well as the type of data information contained within a connection) (col. 7 lines 35-47).

**8. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (703) 305-4888. The examiner can normally be reached on 6:30am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson *KF*  
Art Unit 2683  
March 29, 2004